

DETAILED ACTION

This action is in response to applicant's amendment filed November 1, 2011.

Claims 19, 20 and 23 have been amended. Claims 13, 14, 18-24, and 27 are pending in this application. The rejection under 35 U.S.C. 112 in the previous office action is withdrawn in view of applicant's amendment. The rejection under 35 U.S.C. 103 in the previous office action is maintained.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was

not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

The reference discloses all the limitations of a claim except a property or function, and the examiner cannot determine whether or not the reference inherently possesses properties which anticipate or render obvious the claimed invention but has basis for shifting the burden of proof to applicant as in *In re Fitzgerald*, 619 F.2d 67, 205 USPQ 594 (CCPA 1980). See MPEP §§ 2112- 2112.02.

Claims 13, 14, 18, 21, 22, and 27 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent 5,532,326 Dall'Occo et al. (hereinafter, Dal'Occo).

Regarding claim 13, Dall'Occo teaches an adduct of magnesium chloride/ethyl alcohol. See the Example in column 4, line 64. The adduct was subjected to thermal dealcoholation. See column 4, line 67 and column 3, lines 20-22. Next, the adduct was reacted with the Lewis Base, an ester, ethylbenzoate. See Example 1, column 5, lines 11-16.

Dall'Occo is silent on the fusion enthalpy of the adduct. However, the adduct in Dall'Occo has the same components as the adduct instantly claimed and was prepared the same way as the adduct instantly claimed. Therefore, the adduct in Dall'Occo would have the same fusion enthalpy as that instantly claimed.

Dall'Occo differs from the instant claims because Dall'Occo does not teach that the adducts in the Examples have the "n" and "p" values instantly claimed. However, Dall'Occo teaches that the adduct has the formula $MgCl_2 \cdot nROH$, wherein R can be an

alkyl having 1 to 12 carbon atoms and n is generally greater than 2. See column 3, lines 10-15. Dall'Occo teaches the Lewis Base is preferably an ester. See column 3, lines 34-40. Dall'Occo's process of preparing the catalyst components containing the adduct is the same as that of the instant claims. In the Example on page 4, lines 64-67 and page 5, lines 1-16, an adduct of magnesium chloride/ethyl alcohol is subjected to thermal dealcoholation, next the adduct is reacted with a Lewis Base.

The formula of the adduct in Dall'Occo is due to the chemical formulation. The chemical components in the adduct of Dall'Occo are the same as those instantly claimed and the process of preparing the catalyst component containing the adduct are the same as that instantly claimed. Therefore, the adduct in Dall'Occo would have the same "n" and "p" values as instantly claimed.

Regarding claim 14, the formula of the adduct in Dall'Occo is due to the chemical formulation. Therefore, the adduct in Dall'Occo would have the same "n" and "p" values as instantly claimed. See the Example on page 4, lines 64-67 and page 5, lines 1-16.

Regarding claim 18, Dall'Occo teaches that the transition metal compound VCl₄ is reacted with the adduct. See Example 1, column 5, lines 21-24. For a teaching that the invention is useful in polymerizations see column 1, lines 6-9.

Regarding claim 21, Dall'Occo teaches that electron donor compounds comprise the Lewis Bases. See column 3, lines 34 and 35. Dall'Occo teaches that the adduct is reacted with a Lewis Base, ethylbenzoate and the transition metal VCl₄. See column 5, lines 10-24. Also see column 2, lines 55-59.

Regarding claim 22, Dall'Occo teaches the use of the electron donor, an ester, ethylbenzoate. See Example 1, column 5, lines 11-16.

Regarding claim 27, Dall'Occo teaches that the Lewis Base is selected from compounds such as ethers and esters. See column 3, lines 34 and 35. Dall'Occo teaches the use of the ester ethylbenzoate in an example. See Example 1, column 5, lines 11-16. It is noted that according to instant claim 13, if LB is ether or ester, RX_m is absent.

Claim Objections

Claims 19, 20, 23, and 24 are objected to as being dependent upon a rejected base claim.

Response to Arguments

Applicant's arguments, see p. 5, filed November 1, 2011, with respect to the rejection under 35 U.S.C. 112 have been fully considered and are persuasive. The rejection has been withdrawn in view of applicant's amendment.

Applicant's arguments filed November 1, 2011 with respect to the rejection under 35 U.S.C. 103 have been fully considered but they are not persuasive. Applicant argues that Dall'Occo does not teach n. However, Dall'Occo teaches that the adduct has the formula MgCl₂.nROH, wherein R can be an alkyl having 1 to 12 carbon atoms and n is generally greater than 2. See column 3, lines 10-15. Dall'Occo teaches the Lewis Base is preferably an ester. See column 3, lines 34-40. Dall'Occo's process of preparing the catalyst components containing the adduct is the same as that of the instant claims. In the Example on page 4, lines 64-67 and page 5, lines 1-16, an adduct

of magnesium chloride/ethyl alcohol is subjected to thermal dealcoholation, next the adduct is reacted with a Lewis Base.

The formula of the adduct in Dall'Occo is due to the chemical formulation. The chemical components in the adduct of Dall'Occo are the same as those instantly claimed and the process of preparing the catalyst component containing the adduct are the same as that instantly claimed. Therefore, the adduct in Dall'Occo would have the same "n" and "p" values as instantly claimed.

Applicant argues that the examiner improperly finds claimed limitations through inherency. However, the adduct in Dall'Occo has the same components as the adduct instantly claimed and was prepared the same way as the adduct instantly claimed. Therefore, the adduct in Dall'Occo would have the same fusion enthalpy as that instantly claimed.

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to SONYA WRIGHT whose telephone number is (571)272-5857. The examiner can normally be reached on 8:30 am to 5:00 pm Monday through Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Wu can be reached on (571) 272-1114. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/LING-SIU CHOI/
Primary Examiner, Art Unit 1762

/SONYA WRIGHT/
Examiner, Art Unit 1762